

What Is Claimed Is:

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1. In an adaptive speed control system for a vehicle, a method for controlling vehicle deceleration, the method comprising:  
determining a speed of the vehicle; and  
setting a maximum allowed vehicle deceleration based on the vehicle speed determined.

2. The method of claim 1 wherein setting a maximum allowed vehicle deceleration based on the vehicle speed includes adjusting the maximum allowed vehicle deceleration in an inverse relationship to the vehicle speed.

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3. The method of claim 2 wherein adjusting the maximum allowed vehicle deceleration comprises decreasing the maximum allowed vehicle deceleration as the vehicle speed increases.

4. The method of claim 2 wherein adjusting the maximum allowed vehicle deceleration comprises increasing the maximum allowed vehicle deceleration as the vehicle speed decreases.

5. The method of claim 2 wherein the maximum allowed vehicle deceleration is capable of varying continuously.

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1 6. The method of claim 5 wherein the  
2 maximum allowed vehicle deceleration is capable of  
3 varying in a range between about 0.2 g and about  
4 0.3 g.

1 7. The method of claim 2 wherein the  
2 maximum allowed vehicle deceleration is an exponential  
3 function of the vehicle speed.

5  
1 6.8. The method of claim 7 wherein the  
2 maximum allowed vehicle deceleration is defined by the  
3 equation:

4 
$$\text{MAXDECEL} = 0.2 + 160/(\text{VEHSPD} + 40)^2,$$

5 where MAXDECEL is the maximum allowed vehicle  
6 deceleration, and VEHSPD is the vehicle speed.

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1 9. In an adaptive speed control system for  
2 a vehicle, a system for controlling vehicle  
3 deceleration, the system comprising:

4 a receiver capable of receiving an input  
5 signal indicative of a speed of the vehicle; and

6 a controller capable of setting a maximum  
7 allowed vehicle deceleration based on the vehicle  
8 speed.

1 10. The system of claim 9 wherein, to set a  
2 maximum allowed vehicle deceleration based on the

3 vehicle speed, the controller is capable of adjusting  
4 the maximum allowed vehicle deceleration in an inverse  
5 relationship to the vehicle speed.

1 11. The system of claim 10 wherein, to  
2 adjust the maximum allowed vehicle deceleration, the  
3 controller is capable of decreasing the maximum  
4 allowed vehicle deceleration as the vehicle speed  
5 increases.

1 12. The system of claim 10 wherein, to  
2 adjust the maximum allowed vehicle deceleration, the  
3 controller is capable of increasing the maximum  
4 allowed vehicle deceleration as the vehicle speed  
5 decreases.

1 13. The system of claim 10 wherein the  
2 maximum allowed vehicle deceleration is capable of  
3 varying continuously.

1 14. The system of claim 13 wherein the  
2 maximum allowed vehicle deceleration is capable of  
3 varying in a range between about 0.2 g and about  
4 0.3 g.

1 15. The system of claim 10 wherein the  
2 maximum allowed vehicle deceleration is an exponential  
3 function of the vehicle speed.

